

WIRELESS COMMUNICATION WITH IMPLANTABLE MEDICAL DEVICE

ABSTRACT OF THE DISCLOSURE

Embodiments of the present invention are directed to apparatus and methods of minimizing current drain of an implantable medical device during wireless communication with the device, thereby reducing battery depletion of the device. In one embodiment, the implantable medical device comprises a wireless receiver configured to communicate wirelessly with an external transmitter of an external device via a plurality of communication channels each having a different frequency within a frequency band. The wireless receiver comprises a wideband receiver circuit configured to detect a signal from any of the plurality of communication channels at the different frequencies within the frequency band simultaneously. In another embodiment, the external device is configured to communicate wirelessly with the implantable medical device via a preset communication channel, and via an alternate communication channel selected according to an order of priority if the wireless receiver does not detect a suitable signal from the external transmitter using the preset communication channel.

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